

REMARKS

The Final Office Action dated October 28, 2004 has been considered. Favorable reconsideration and allowance of the subject application are respectfully requested in view of the following remarks.

Summary of the Final Office Action

Claims 2-4 and 6-10 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 5,675,412 to Solomon (hereinafter "Solomon") in view of "applicant's prior art figure 1."

Summary of the Response to the Final Office Action

Applicants amend claims 4, 8, 9 and 10 and claims 2-3 and 6-7 are now canceled without prejudice or disclaimer. Applicants have added claims 11 and 12 to differently describe embodiments of the instant application consistent with the originally-filed disclosure and to afford Applicants with coverage to which they are entitled. Accordingly, Applicants respectfully request examination of pending claims 4 and 8-12 in the instant application.

Rejections under 35 U.S.C. § 103(a)

Claims 2-4, 6-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Solomon in view of "applicants' prior art figure 1." Claims 2-3 and 6-7 have been canceled without prejudice or disclaimer, rendering their rejections moot. Moreover, claims 4 and 8-10 have been amended to differently describe embodiments of the disclosure. To the extent that

these rejections might be deemed to still apply to claims 4, and 8-10 as newly-amended, they are respectfully traversed as follows.

Independent claim 9 has now been newly-amended to recite a laser-based measuring apparatus for measuring an axial run-out in a cylinder of rotation including a laser light source; a portion for generating at least two measuring light beams by dividing a light beam provided from the laser light source; a cylinder having an axis of rotation and cylindrical side surface portions opposing to each other on a diameter; a measuring axis positioned on the cylinder's diameter to pass through the axis of rotation of the cylinder; an opposing incident optical system for directing said two measuring light beams through separate optical paths into said cylindrical side surface portions, respectively, such that said two measuring light beams oppose to each other on said measuring axis, wherein said opposing incident optical system receives light beams reflected by said cylindrical side surface portions to recombine the reflected light beams so as to interfere with each other to generate interfered light; a photodetector for receiving the interfered light to generate a beat signal as the difference of optical frequencies by heterodyne detection; and a measuring circuit connected to the photodetector for calculating the axial run-out in the cylinder of rotation which changes an optical path length of a portion of an optical path based on the beat signal.

Independent method claim 10 has been amended to include similar features as independent apparatus claim 9. Support for the revisions to claims 9 and 10 can be found in Figs. 7-10 of the instant application and in the associated description of these figures in the specification of the instant application.

Solomon discloses an interferometer that includes a back-to-back double mirror that is operatively interposed in the paths of beams from a beam splitter/parallel reflecting mirror

combiner, as well as a corner cube retro-reflector. However, Applicants respectfully submit that Solomon does not teach, or even suggest, any application of a laser-based measuring apparatus to a cylinder, as conceded to by the Examiner in the Final Office Action dated October 28, 2004, in the manner recited in newly-amended independent claims 9 and 10. Moreover, the alleged “applicant’s prior art figure 1” does not cure the deficiencies of Solomon in this regard.

Applicants respectfully assert that the rejections under 35 U.S.C. § 103(a) should be withdrawn because the applied art of record does not teach or suggest each feature of independent claims 9 and 10, as amended. MPEP § 2143.03 instructs that “[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 409 F.2d 981, 180 USPQ 580 (CCPA 1974).” Furthermore, Applicants respectfully asserts that dependent claims 4 and 8 are allowable at least because of their dependence from claims 9 and 10, respectively, and the reasons set forth above.

Newly-Added Claims 11 and 12

Applicants have added claims 11 and 12 to differently describe embodiments of the instant application consistent with the originally-filed disclosure and to afford Applicants with coverage to which they are entitled. These new dependent claims are allowable at least because of their respective dependence on amended independent claims 9 and 10, and the reasons set forth above. Support for newly-added claims 11 and 12 can be found in Figs. 7-10 of the instant application and in the associated description of these figures in the specification of the instant application.

Conclusion

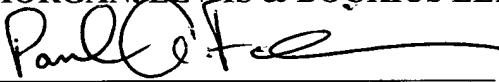
In view of the foregoing amendments and remarks, withdrawal of the rejections and allowance of the pending claims are earnestly solicited. Should there remain any questions or comments regarding this response or the application in general, the Examiner is urged to contact the undersigned at the number listed below.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

MORGAN, LEWIS & BOCKIUS LLP

By:



Paul A. Fournier

Reg. No. 41,023

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CUSTOMER NO. 009629

MORGAN, LEWIS & BOCKIUS LLP

1111 Pennsylvania Avenue, NW

Washington, D.C. 20004

Telephone: 202.739.3000

Facsimile: 202.739.3001